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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,530	06/26/2003	Laura Dunning	53001AUSM1	4878

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EXAMINER	
WARD, PAUL V	

ART UNIT	PAPER NUMBER
1623	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/607,530	DUNNING ET AL.	
	Examiner	Art Unit	
	PAUL V. WARD	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *1-7 and 20-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/26/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election, without traverse, of Group I (i.e., claims 8-19 according to formula 2a), in the reply filed on August 15, 2005 is acknowledged.

Applicant is entitled to have the method claims, that are commensurate in scope, rejoined under M.P.E.P. § 821.04, if the compound claims of Group I are ultimately found allowable.

Groups II-XIV are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected subject matter, there being no allowable generic or linking claim.

Applicant timely traversed the restriction requirement, and reserved the right to file a divisional application to the non-elected subject matter.

An action on the merits on claims 8-19 is contained herein.

Claim Rejections - 35 USC § 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claims 8-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims recite the term substituted. In the absence of the specific moieties intended to effectuate modification by "substitution" or attachment to the chemical core claimed, the term "substituted" renders the claims in which it appears indefinite in all occurrences wherein applicant fails to articulate by

chemical name, structural formula or sufficiently distinct functional language, the particular moieties applicant regards as those which will facilitate substitution, requisite to identifying the composition of matter claimed.

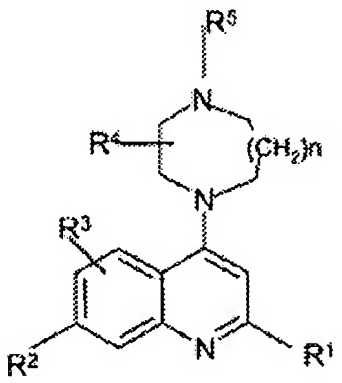
Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuno et al. (U.S. Patent 6,169,088).

Applicant teaches quinoline compounds as CCR5 receptor antagonists. Applicant claims a substituted quinolines with a general formula 2a:



(2a)

wherein all the variables are as defined in the claim.

Matsuno discloses compounds, which share the same formulaic compounds. (See Abstract and formula, col.2 lines 5-15). The compounds in the said patent has the same structure, which includes n as 0, R^1 as H or amino group, and R^2 as a halogen, R^3

as H, alkyl, halo amino group, alkoxy, R^4 H or alkyl group, R^5 as an aminocycloalkyl, (alkoxy) carbonyl, (aryloxy) carbonyl –C(=O)-R^6 and falls within the range of Applicant's quinoline compounds. (See col. 10, line 5 to col. 16, Tables 1-1 to 1-69, and Examples). Since Matsuno teaches the exact compounds, Applicant's claims are anticipated, and thus, rejected under 35 U.S.C. 102(b).

3. Claims 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Malley et al. (U.S. Patent 5,494,908).

O'Malley teaches compounds, which share the same formulaic compounds. (See Abstract). The compounds in the said patent has the same structure, which includes n as 0, R^1 as H or amino group, and R^2 as a halogen, R^3 as H, alkyl, halo amino group, alkoxy, R^4 H or alkyl group, R^5 as an aminocycloalkyl, (alkoxy) carbonyl, (aryloxy) carbonyl –C(=O)-R^6 and falls within the range of Applicant's quinoline compounds. (See col. 6, line 20 to col. 8, line 15, col. 9, line 25 to col. 10 line 15, and col. 11 to 15, Tables IV-V, and Examples). Since O'malley teaches the exact compounds, Applicant's claims are anticipated, and thus, rejected under 35 U.S.C. 102(b).

4. Claims 8-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yang et al (CN 1234397).

Yang teaches compounds, which share the same formulaic compounds. (See Abstract). The compounds in the said patent has the same structure, which includes n as 0, R^1 as H or amino group, and R^2 as a halogen, R^3 as H, alkyl, halo amino group, alkoxy, R^4 H or alkyl group, R^5 as an aminocycloalkyl, (alkoxy) carbonyl, (aryloxy)

carbonyl –C(=O)-R^6 and falls within the range of Applicant's quinoline compounds. (See pages 1-7). Since Yang teaches the exact compounds, Applicant's claims are anticipated, and thus, rejected under 35 U.S.C. 102(b).

5. Claims 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuno et al. (EP 0 882 717 A1).

Matsuno teaches compounds, which share the same formulaic compounds. (See Abstract). The compounds in the said patent has the same structure, which includes n as 0, R^1 as H or amino group, and R^2 as a halogen, R^3 as H, alkyl, halo amino group, alkoxy, R^4 H or alkyl group, R^5 as an aminocycloalkyl, (alkoxy) carbonyl, (aryloxy) carbonyl –C(=O)-R^6 and falls within the range of Applicant's quinoline compounds. (See pages 3-5, Tables and Examples). Since Matsuno teaches the exact compounds, Applicant's claims are anticipated, and thus, rejected under 35 U.S.C. 102(b).

6. Claims 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Rhone Poulenc. (FR 84 902).

Poulenc teaches compounds, which share the same formulaic compounds. (See Abstract). The compounds in the said reference has the same structure, which includes n as 0, R^1 as H or amino group, and R^2 as a halogen, R^3 as H, alkyl, halo amino group, alkoxy, R^4 H or alkyl group, R^5 as an aminocycloalkyl, (alkoxy) carbonyl, (aryloxy) carbonyl –C(=O)-R^6 and falls within the range of Applicant's quinoline compounds. (See pages 1-3 and 6-7). Since Poulenc teaches the exact compounds, Applicant's claims are anticipated, and thus, rejected under 35 U.S.C. 102(b).

7. Claims 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Agrawal et al. (Indian Journal of Chemistry '1987).

Agrawal teaches compounds, which share the same formulaic compounds. (See Abstract). The compounds in the said patent has the same structure, which includes n as 0, R^1 as H or amino group, and R^2 as a halogen, R^3 as H, alkyl, halo amino group, alkoxy, R^4 H or alkyl group, R^5 as an aminocycloalkyl, (alkoxy) carbonyl, (aryloxy) carbonyl $-C(=O)-R^6$ and falls within the range of Applicant's quinoline compounds. (See pages 550-555). Since Agrawal teaches the exact compounds, Applicant's claims are anticipated, and thus, rejected under 35 U.S.C. 102(b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuno et al. (U.S. Patent 6,169,088).

Matsuno teaches a generic group of quinoline derivatives, which embraces Applicants' claimed compounds. (See formula 1, col. 2 and definitions for V, W, X, Y, Z, R^1, R^2, R^3, R^4, R^5 and R^6). The claims differ from the reference by reciting specific species and a more limited genus than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of

the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. A prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within a genus. Thus, Applicant's claims are obvious, and therefore, rejected under 35 U.S.C. 103.

9. Claims 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Malley et al. (U.S. Patent 5,494,908).

O'Malley teaches a generic group of quinoline derivatives, which embraces Applicants' claimed compounds. (See formula 1, col. 6 and definitions for m, R^1-R^6). The claims differ from the reference by reciting specific species and a more limited genus than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. A prior art disclosed genus of useful compounds is sufficient

to render prima facie obvious a species falling within a genus. Thus, Applicant's claims are obvious, and therefore, rejected under 35 U.S.C. 103.

10. Claims 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. (CN 1234397).

Yang teaches a generic group of quinoline derivatives, which embraces Applicants' claimed compounds. (See Abstract and formula 1, page 1). The claims differ from the reference by reciting specific species and a more limited genus than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. A prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within a genus. Thus, Applicant's claims are obvious, and therefore, rejected under 35 U.S.C. 103.

11. Claims 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhone Poulenc (FR 84 902).

Poulenc teaches a generic group of quinoline derivatives, which embraces Applicants' claimed compounds. (See Abstract and formula 1, page 1 and pages 1-3, 6-7 and definitions for A, R_1 and R_2). The claims differ from the reference by reciting

specific species and a more limited genus than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. A prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within a genus. Thus, Applicant's claims are obvious, and therefore, rejected under 35 U.S.C. 103.

12. Claims 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal et al. (Indian Journal of Chemistry' 1987).

Agrawal teaches a generic group of quinoline derivatives, which embraces Applicants' claimed compounds. (See Abstract and formula 1, and pages 550-555). The claims differ from the reference by reciting specific species and a more limited genus than the reference. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds

from the genus in the reference since such compounds would have been suggested by the reference as a whole. A prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within a genus. Thus, Applicant's claims are obvious, and therefore, rejected under 35 U.S.C. 103.

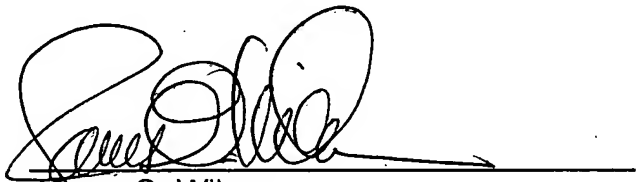
Conclusion

Claims 8-19 are pending. Claims 8-19 are rejected. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL V WARD whose telephone number is 571-272-2909. The examiner can normally be reached on M-F 8 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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